# Open Access: A Brief

*Prepared by the Center for Digital Research and Scholarship*
*Columbia University Libraries / Information Services*
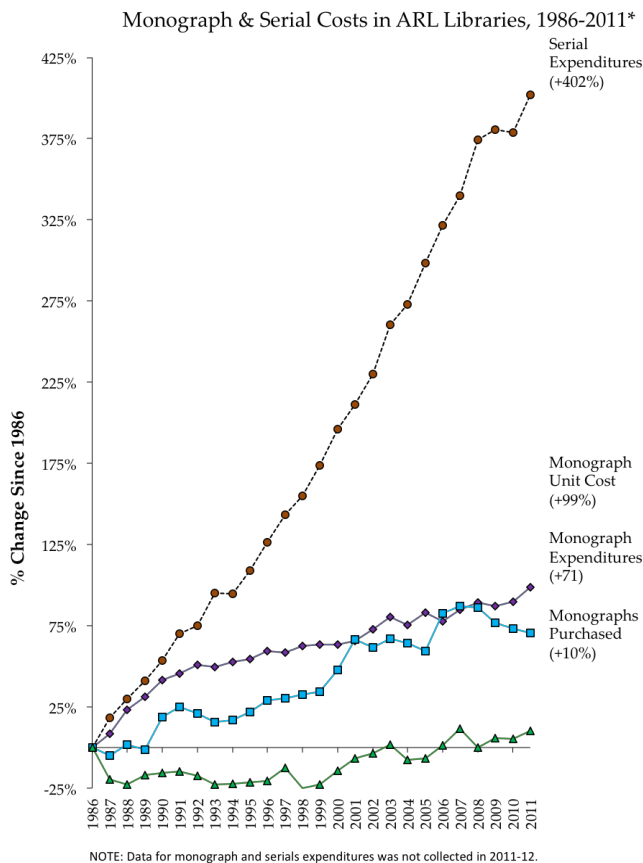
## What is open access?

Open access is the free, immediate, online availability of research results, coupled with the rights to use these results either partially or fully in the digital environment.

### A brief history

Researchers and scholars have been openly sharing their work online since the early days of the Internet. In the 1990s, a number of research communities established preprint servers, including arXiv, RePEc, and SSRN. Some researchers involved in these early initiatives argued for this open sharing of preprints on a wide scale, to take full advantage of networked technology's potential to increase the pace of research and innovation.

Meanwhile, research libraries were struggling with a dramatic rise in the price of journal subscriptions, an increase that far outpaced the rate of inflation. These higher prices — despite online publishing resulting in lowered distribution costs for publishers — led many to ask if the subscription-based model for scholarly journals was still serving the needs of researchers and scholars in facilitating the spread of new knowledge.

In the ensuing years, many in the academic community have worked to use the Internet to increase access to scholarly publications: funders have instituted public access policies, researchers and publishers have founded open access journals, institutions have established open repositories, and faculties have approved open access resolutions.[1]



Monograph & Serial Costs in ARL Libraries, 1986-2011*

NOTE: Data for monograph and serials expenditures was not collected in 2011-12.

**Source:** *ARL Statistics 2010-11* Association of Research Libraries, Washington, D.C.
*Includes electronic resources from 1999-2011.

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[1] From Open Access - SPARC <http://www.sparc.arl.org/issues/open-access>

**Why is open access important?**

We engage and invest in research to accelerate the pace of scientific discovery, encourage innovation, enrich education, and stimulate the economy to improve the public good. Communication of the results of research is an essential component of the research process; research can only advance by sharing the results, and the value of an investment in research is only maximized through wide use of its results. Open access is a solution to the paradox of scholarly communication today: the Internet gives us the opportunity to bring this crucial information to a worldwide audience at virtually no marginal cost. Yet, too often, because of cost barriers or use restrictions, research results are not available to the full community of potential users. Traditionally, open access has been associated solely with peer-reviewed journal articles. In practice the open access paradigm is extended to any and all research results (e.g. monographs, conference papers, presentations, supplementary materials, data, etc.) that can be used and reused to advance research and scholarship and benefit society[2].

## Challenges

There have been challenging obstacles on the path to complete adoption of open access:

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| *Publisher opposition* | Many publishers have fought hard to maintain their subscription-based business models and, for some, their large profit margins. Publishers typically operate in an inelastic market where a few large publishers with little-to-no competition enforce subscription and licensing costs. |
| *Varying disciplinary cultures* | Open access practices reflect the norms for sharing research in some fields, especially in the sciences, where timely/immediate publication in scholarly journals is essential. In humanities disciplines, where the monograph is prized and scholarship tends to be less collaborative, open access has had less appeal. |
| *Academic custom* | Faculty and administrators have been slow to change the tenure and promotion system and peer review practices, which are intimately tied to scholarly publishing norms that were developed before the Internet age. Researchers and scholars have often had few incentives to make their work open. |
| *Intellectual property and copyright* | Open distribution of works on the Internet is not easily reconciled with current copyright laws. Open licenses can help, but can also be misapplied. In many cases, researchers transfer all rights to their scholarly publications to their publisher, limiting their ability to disseminate their work in open venues. |

This has led to the evolution of different open access practices.

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| *By venue:* | **Green open access**: Researchers and scholars deposit a version of their peer-reviewed articles or other publications in an open access repository, such as Columbia University's Academic Commons. |
| | **Gold open access**: Researchers and scholars publish their peer-reviewed articles or books in a journal or via an academic press that provides free and immediate access upon publication. |

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[2] Partly from Open Access - SPARC <http://www.sparc.arl.org/issues/open-access>

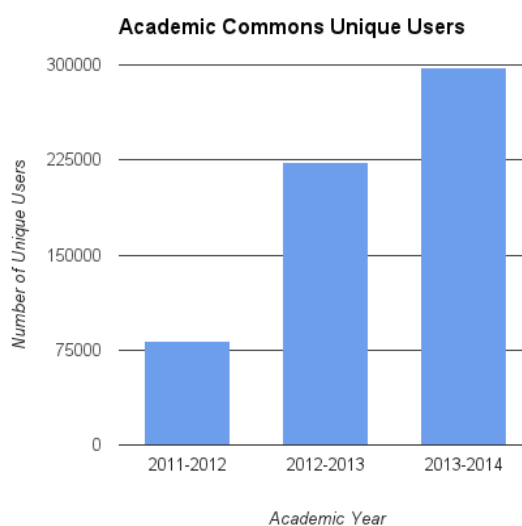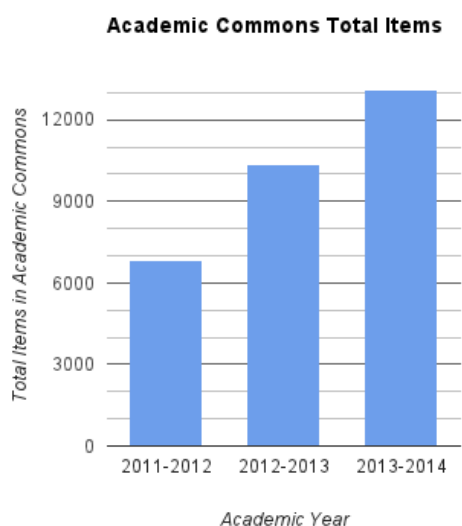# Promoting open access at Columbia University Libraries/Information Services

On behalf of the university, Columbia University Libraries/Information Services promotes greater access to and use of the research and scholarship produced at Columbia University through a variety of initiatives and programs primarily located at the Center for Digital Research and Scholarship (CDRS), in partnership with other library centers and departments.

## Academic Commons

*Offering public access to the research outputs produced at Columbia and its affiliates*
*http://academiccommons.columbia.edu*

Academic Commons, Columbia's research repository, preserves and makes available research outputs in any format, including, but not limited to, journal articles, book chapters, working papers, conference proceedings, and datasets. There are currently over 1,600 doctoral dissertations in the repository, along with hundreds of master's and undergraduate theses.

The number of items contributed to Academic Commons by the Columbia community has grown steadily and the size of the repository's global audience has increased.

## Scholarly Communication Program

*Engaging the Columbia community with resources and programming on the evolving means and requirements of communicating the results of research, especially openly.*

The Scholarly Communication Program and other CUL/IS departments have partnered with the following Columbia schools and units to implement open access resolutions. These resolutions, adopted by faculty vote, commit faculty and staff from these academic units to deposit their research in Academic Commons or a similar open access repository (for example, the NIH's PMC):

| Open Access Resolution | Effective Date |
| --- | --- |
| Lamont-Doherty Earth Observatory | March 1, 2011 |
| Libraries/Information Services | June 1, 2011 |
| Mailman School of Public Health | May 1, 2013 |
| School of Social Work | December 2, 2013 |

The Scholarly Communication Program raises awareness on campus about open access and other scholarly communication topics.

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| *Research Without Borders* | Since 2008, the Scholarly Communication Program has hosted over 30 events at Columbia on pivotal issues in scholarly communication. The Research Without Borders series features speakers from around the globe discussing topics such as peer review, "altmetrics," research funders' public access policies, open access business models, and the future of learned societies. |
| *Workshops and presentations* | Staff members from the Scholarly Communication Program, CDRS, and CUL/IS regularly offer workshops and present talks on topics that include open access, research data management and data sharing, negotiation of publication agreements, use of social media, funders' public access policies, and depositing work in Academic Commons. |

## CDRS' Publications Program

*Partnering to publish open journals and long-form projects with Columbia scholars and researchers*

| Partners providing open content online | Journal launch date | CDRS site launch date |
| --- | --- | --- |
| *Columbia Social Work Review* | 2003 | 2012, November |
| *Columbia Undergraduate Science Journal* | 2006 | 2007 |
| *Consilience: The Journal of Sustainable Development* | 2008 | 2009 |
| *The Morningside Review* | 1982 | 2012, September |
| *On Our Terms* | 2013 | 2013, June |
| *Tremor and Other Hyperkinetic Movements* | 2011 | 2011, August |

## Columbia Open Access Publications (COAP) fund

*Alleviating the costs of publishing in open journals for Columbia authors*

Some open access journals use article processing charges (APCs) to offset publishing costs. Columbia authors with no available funds to pay an APC can apply to the COAP Fund for help. From fiscal years 2010 to 2014, the Fund accepted applications from 147 Columbia researchers and reimbursed all or part of the article processing fees for 49 scholarly journal articles.

## Participation in national and international initiatives

### SPARC (Scholarly Publishing and Academic Resources Coalition)

SPARC's efforts have been instrumental to the success of open access milestones such as the NIH Public Access Policy. It has also provided innovative education and outreach tools in support of a more open scholarly communication system. CUL/IS staff members have been key advisors of and contributors to SPARC initiatives and regularly participate in SPARC-sponsored events such as the yearly Open Access Week.

### SHARE (SHared Access Research Ecosystem)

CDRS staff members, along with some Columbia researchers and administrators, are active participants in SHARE (SHared Access Research Ecosystem), an initiative of the Association of Research Libraries, the Association of American Universities, and the Association of Public and Land-grant Universities. SHARE is developing tools to make the inventory of research assets more discoverable and more accessible, and to enable the research community to build upon these assets in creative and productive ways.  Academic Commons has been selected as one of the repositories for their pilot Notification System, and staff from CDRS are members on various SHARE working groups.

### Humanities Commons

CDRS and the Modern Language Association (MLA) are working together to develop *Humanities Commons*, a platform for scholarly societies and related groups across the humanities that will enable members of those organizations to communicate, collaborate, and share their work with one another. *Humanities Commons* will link a federated group of social networking systems, modeled on *MLA Commons*, with a library-quality repository, modeled on Columbia's Academic Commons, called the Humanities CORE. An NEH Office of Digital Humanities Level II Start-Up Grant is funding development of a working prototype for the user interface connecting the *Commons* with the repository system.

### Research Data Alliance

The Research Data Alliance (RDA) is a global initiative comprised of experts from academia, industry, and government and focused on building the technical and social bridges that enable open sharing of data across countries, disciplines, and technologies. Columbia, represented by staff from CDRS,  is an RDA organizational member.